

REMARKS

I. Introduction

In response to the Office Action dated January 29, 2007, Applicants have amended claims 1, 32, and 34. Claims 29 - 31, 33, and 36 have been canceled and claim 38 is newly added. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

II. Claim Rejections Under 35 U.S.C. § 112

Claim 32 stands rejected under 35 U.S.C. § 112, second paragraph allegedly being indefinite. More particularly, the Examiner asserts that there is no antecedent basis for the recitation "the coil group terminal portions." Claim 32 has been amended to recite that the coil group includes terminal portions. Accordingly, withdrawal of this rejection is respectfully requested.

III. Claim Rejections Under 35 U.S.C. § 103

Claims 1 – 3, 22 – 32, 34, and 35 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,950,006 to Shikama in view of U.S. Patent No. 6,946,944 to Shafer. Applicants traverse these rejections for at least the following reasons.

Claim 1 is directed to an array type choke coil comprising a coil group arranging a plurality of terminal-integrated type coils formed by bending a metal sheet, the metal sheet including a plurality of arcuate parts, wherein an insulation film is formed over a surface of the plurality of arcuate parts. At least these features are not disclosed or suggested by the cited references, alone or in combination with each other.

Shikama discloses various coil groups wherein the four coils forming the groups have different configurations based on the number of turns or the diameter of the coils. Shafer discloses a method of forming a coil winding by machining a flat sheet into a preset form and

thereafter bending it. In both Shikama and Shafer, the terminals for connecting the coils as inductor elements to the external devices are provided on a plane parallel with the axes of the coils. Therefore, when the inductor elements are connected to the external devices, their coil axes become parallel with the mounting surfaces of the external devices. This is because the coils of both Shikama and Shafer require a large number of turns to achieve the required inductance values.

In contrast, the coil structure of claim 1 includes an insulation film formed on the arcuate parts, and not on the connection. This configuration allows the metal sheet to be bent at the connection without causing a defect in the insulation film, such as stripping or breaking, on the connection because no insulation film is formed on the connection. This configuration further allows the metal sheet to be bent so that the adjacent arcuate parts closely contact with each other without a clearance therebetween. This enables to coils to be downsized in thickness. Neither Shikama nor Shafer, alone or in combination with each other, disclose or even suggest this feature.

Accordingly, as each and every limitation must be disclosed or suggested by the prior art references in order to establish a *prima facie* case of obviousness (MPEP § 2143.03), and the combination of the cited references fails to do so, it is respectfully submitted that claim 1 is patentable over the cited references taken alone or in combination with one another.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as the independent claims are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are

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also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

IV. Conclusion

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP


Michael E. Fogarty
Registration No. 36,139

**Please recognize our Customer No. 53080
as our correspondence address.**

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 DAB:MWE
Facsimile: 202.756.8087
Date: April 30, 2007